NOVEMBER/DECEMBER 2025

FCA41/FCS41/CCA41/CCS41 — RELATIONAL DATABASE MANAGEMENT SYSTEMS

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

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1. What is DBMS?
2. What do you mean by tuple?
3. How the nested subquery executed?
4. Differentiate count ( ) and sum ( ) function.
5. Give an example for Decomposition.
6. State second normal form.
7. Define Hashing.
8. What do you mean by cluster file?
9. Define lock.
10. What is called transaction?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Outline Entity, Entity types, Strong Entity, and Weak Entity with example.

Or

(b) Give an account on Object modelling.

12. (a) Write short note on relational algebra.

Or

(b) Explain inner, outer, left outer and right outer join with example.

13. (a) What is Functional dependencies? Explain Armstrong's inference rule.

Or

(b) State and Explain third normal form.

14. (a) Discuss about tertiary storage in detail.

Or

(b) Examine Data dictionary storage.

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15. (a) Give an account on log based recovery.

Or

(b) Illustrate Two-Phase Locking Techniques for Concurrency Controls.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Expound specialization and generalization in detail.

17. Describe the concept of Dynamic SQL.

18. Explain Fourth Normal form.

19. Summarize RAID data storage technology.

20. Illustrate concurrency control.

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